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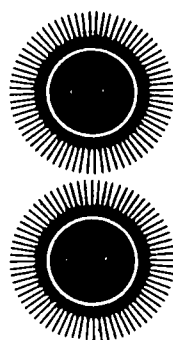
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*Trainable Mentally Handicapped

ABSTRACT

Listed in the annotated bibliography, one of a series of over 50 similar selected bibliographies on exceptional (both handicapped and gifted) children, are 78 references to research dealing with the trainable and custodial mentally retarded. The research treats such subjects as behavior modification, use of reinforcement and operant conditioning, teaching methods, testing, and various aspects of child development. For all entries, which were selected from Exceptional Child Education Abstracts, bibliographic data, availability information, indexing and retrieval descriptors, and an abstract are given. Also provided are an author index and a subject index. (KW)

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TRAINABLE MENTALLY HANDICAPPED—RESEARCH

A Selective Bibliography

February 1971

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408 - 477	1.75	968 - 1037	3.75
478 - 547	2.00		

ABSTRACTS

ABSTRACT 10061

EC 01 0061 ED 018 887
 Publ. Date 66 31p.
 Orlando, Robert; Tyler, Russell M.
Experimental Analysis of Reinforcer Hierarchies in Developmental Retardates--Baseline Stabilization.
 George Peabody Coll. For Teachers, Nashville, Tenn.
 Institute On Ment. Ret. And Intel. Dev., Nashville, Tenn.
 EDRS mf,hc

Descriptors: exceptional child research; mentally handicapped; reinforcement; reinforcers; research methodology; adolescents; young adults; institutionalized (persons); methods research; methodology; trainable mentally handicapped; response mode; behavior change

The first stage of a research project investigating reinforcer preferences in developmental retardates is described. The subjects, 12 males and three females (chronological age 10 to 22, mental age 2.8 to 8.7), were presented with a task in which 35mm color slides were projected onto a console window. Responses required subjects to choose among four reinforcers--M/M candies, Cheerios, trinkets, and pennies. Results indicated that most subjects tended to distribute their reinforcer choice responses in one of two ways--(1) choices were initially distributed over the four reinforcers, and within six sessions one reinforcer became more frequently selected and (2) a particular reinforcer was initially selected with high frequency, and a second reinforcer developed as a low frequency choice. Other response patterns were alternation on a cyclical basis and variability of choice not becoming stable until the 25th session. Further refinement of methodology is indicated. Eighteen graphs and four references are included. (DT)

ABSTRACT 10114

EC 01 0114 ED 014 823
 Publ. Date Mar 63 126p.
 Tobias, Jack
Training for Independent Living, a Community Program for Severely Retarded Adults.
 Association For Help Retard. Child., New York, New York
 National Inst. Of Ment. Health, Washington, D.C.
 EDRS mf,hc

Descriptors: exceptional child research; community programs; mentally handicapped; vocational rehabilitation; trainable mentally handicapped; day care programs; custodial mentally handicapped; demonstration programs; educable mentally handicapped; adults; occupational therapy; program evaluation; program planning; self care skills; travel training

An occupational day center for mentally retarded adults was established to provide community services for retarded

persons who live at home and, although beyond school age, are unable to participate in sheltered workshop activities. The staff included a director, a social worker, five instructors, a training supervisor, an office worker, and a psychologist (part-time). Over a 3-year period, 83 clients were accepted into the program with about 55-60 being enrolled at one time. Average age at admission was 21 years (few clients were over age 30), and IQ's ranged from 15 to 65 with a mean IQ of 36. About 80 percent had attended public school special classes. Specific training included travel training, grooming and self care, orientation to the community, domestic skills, and remunerative work. Simple academic instruction included reading signs, telling time, and using money. Statistical tests with data from the clients produced these findings. There was a significant relationship (.01 level using T test) between intelligence and the ability to benefit from travel instruction. There was a significant relationship (.001 and .05 levels for various IQ groups using tests) between intelligence test score and the number of work units produced per hour. Mongoloid clients were significantly less productive (.05 level using test) in a continued work activity than their intellectual peers in other etiologic groups. The San Francisco Social Competency scores of clients are presented. Sample evaluations of trainees and sample case studies are included. Descriptions of the daily program and relationships with parents, professional groups, and the public are given. (JZ)

ABSTRACT 10363

EC 01 0363 ED 019 766
 Publ. Date 66
 Ehlers, Walter H.
Mothers of Retarded Children, How They Feel, Where They Find Help.
 EDRS not available

Descriptors: exceptional child research; mentally handicapped; family (sociological unit); parent attitudes; parents; psychological needs; mothers; mother attitudes; interviews; special services; community services; counseling services; field interviews; health services; socioeconomic status; day care services; social services; psychological services; medical services; case studies (education); minimally brain injured

The research study investigated how mothers of mentally retarded children perceived the retardation, how they made decisions in seeking and using help, and how they reacted to and valued services rendered. The 24 subjects were mothers whose retarded children were classified as brain injured (including mongoloid), had IQ's below 54, and were less than 10 years of age. A field study approach with a focused interview was employed. In addition, interview data, case records, related doc-

uments, and interviews with the clinic staff were analyzed. Information is included on (1) the children, the families, and the service program, (2) the mothers, and (3) the services of the clinic. Implications are drawn from the summary, findings, and conclusions of the study. Significant services now available and prospects for the future are discussed. Appendixes give (1) characteristics of the families, (2) organization and classification of instructional groups, (3) data guide, and (4) recommendations of the President's Panel on Mental Retardation. A bibliography lists 151 entries. This book was published by Charles C Thomas, Bannerstone House, 301-327 East Lawrence Avenue, Springfield, Illinois 62703, and is available for \$6.75. (DF)

ABSTRACT 10446

EC 01 0446 ED 015 604
 Publ. Date May 67 123p.
 Kershner, John R.
An Investigation of the Doman-Delacato Theory of Neuropsychology as It Applies to Trainable Mentally Retarded Children in Public Schools.
 Pennsylvania Dept. Of Public Instruction, Harrisburg
 EDRS mf,hc

Descriptors: exceptional child research; mentally handicapped; cognitive processes; child development; learning; trainable mentally handicapped; neurological organization; intellectual development; physical development; children; experimental programs; intelligence quotient; perceptual motor learning; physical activities; physical education; psychomotor skills; public schools; research projects; Doman Delacato Developmental Profile; Kershner Dusewicz Kershner Revision; Oseretsky Tests of Motor Proficiency; Peabody Picture Vocabulary Test

Two intact classes of public school trainable mentally retarded children were used to study the effects of physical activities derived from the Doman-Delacato theory of physical and intellectual development. The experimental group consisted of seven males and six females from age 8 to 18, and the control group consisted of 10 males and six females from age 8 to 17. All subjects were given the following pre- and posttests--(1) a mobility scale derived from the Doman-Delacato Developmental Profile, (2) the Kershner-Dusewicz-Kershner Revision of the Vineland Adaption of the Oseretsky Tests of Motor Proficiency, and (3) the Peabody Picture Vocabulary Test. The experimental program was extended through 74 teaching days that approximated 5.5 hours each and included activities consistent with the Doman-Delacato theory. For the control group the curriculum involved a number of nonspecific activities that could give opportunities for praise and attention

equal to that received by the experimental group. Hypothesis 1 stating there is a significant improvement in creeping and crawling performance favoring the experimental group was accepted since the Mann-Whitney U Test comparing pre-posttest gain scores between groups found differences statistically significant at the .05 level. Hypothesis 2 stating there is a significant improvement in perceptual-motor proficiency favoring the experimental group was rejected since the Mann-Whitney U Test comparing pre-posttest scores between groups found the differences were not statistically significant at the .05 level. Hypothesis 3 stating there is a significant mean IQ improvement favoring the experimental group was accepted since an analysis of variance produced correlation coefficients between the pretest and posttest scores for the experimental and control groups of .81 and .95 respectively and a difference statistically significant at the .05 level. The treatment had a facilitating effect on both the physical and intellectual development of the experimental group. Replication and larger scale investigations are needed. Appendixes include the creeping and crawling scale and the Kershner-Dusewicz-Kershner Revision of the Vineland Oseretsky Tests of Motor Development. A bibliography lists 56 items. (DF)

ABSTRACT 10599

EC 01 0599 ED 021 372
 Publ. Date 67 14p.
 Semmel, Melvyn I.
Analysis of Teacher-Pupil Verbal Interaction Patterns in Classes for the Mentally Retarded. Studies in Language and Language Behavior, Progress Report Number IV.
 Michigan University, Ann Arbor, Center For Research On Language And Language Behavior
 Office Of Education (DHEW), Washington, D. C., Bureau Of Research
 EDRS mf,hc
 OEC-3-6-061784-0508
 BR-6-1784

Descriptors: exceptional child research; mentally handicapped; communication (thought transfer); teaching methods; trainable mentally handicapped; special classes; interaction; interaction process analysis; classroom communication; student teacher relationship; student reaction; teacher behavior; student behavior; teacher attitudes; Minnesota Teacher Attitude Inventory; Flanders Interaction Analysis; MTAI

Flanders' Interaction Analysis, which classifies verbal interaction into 10 categories, was used to compare two groups consisting of seven trainable mentally retarded (TMR) classrooms each. The sample was selected from the extremes of a population of 87 TMR classrooms on the basis of their teachers' high (tending to flexibility and harmony) or low (tending to rigidity and autocracy) scores on the Minnesota Teacher Attitude Inventory (MTAI). Trained observers visited each class for 2 hours and recorded the verbal interaction between

the teacher and students. Analysis revealed that high MTAI teachers used more questions (p less than .01) and had more student response (p less than .05); low MTAI teachers used more lecture and criticism (p less than .05) and had more student initiated talk (p less than .01). Teacher attitudes and measures of accepting feeling, praise, using ideas, and giving directions were not significant. Results did not yield unqualified support for the hypothesis that teachers' verbal behavior in the classroom can be predicted from MTAI scores because the stratification of teachers by MTAI scores indicated bias in the amount of teaching experience (the high subgroup had fewer years of teaching experience). A histogram compares the data with data from an earlier study using educable mentally retarded and normal subjects. Five tables and 16 references are provided. (Author)

ABSTRACT 10835

EC 01 0835 ED 002 968
 Publ. Date Jun 61 260p.
 Cain, Leo F.
A Study of the Effects of Community and Institutional School Classes for Trainable Mentally Retarded Children.
 San Francisco State College, California
 EDRS mf,hc
 OEC-SAE-8257 CRP-589

Descriptors: exceptional child research; mentally handicapped; environmental influences; public schools; institutional schools; day students; trainable mentally handicapped; public education; mental retardation; family environment; institutional environment; environment; parent child relationship; children; social development; out of school youth; institutionalized (persons)

The major hypothesis of the project was that trainable mentally retarded children attending school programs, whether living at home or in an institution, would show greater increments of social competence over a period of time than comparable children not attending such programs. It was also suggested that parents of retardates who attend public school classes in their communities would show greater increments of adaptability than those whose children do not attend such classes. From about 180 children, four groups were formed: community control, community experimental, institutional control, and institutional experimental. The experimental groups attended public school classes for trainable children while the control groups did not. Ratings on the criterion measures were obtained at the initiation and conclusion of the 2-year experimental period. Parents of the community groups were visited and interviewed four times during the project period. Analysis of findings showed significant increases in the social competency development for the community groups and comparable decreases for the same in the institutional groups. Developmental differences between the school and nonschool children, whether living at home or not,

were insignificant. It was therefore concluded that school programs for trainable mental retardates were inadequate in fostering social competency development. Also, the environment of a home appeared to be much more stimulating for social development than the institutional environment. Parental adaptability appeared not to benefit when children attended school, possibly because of lack of parent-teacher contacts as well as inadequacy of the few contacts that occurred. (JH)

ABSTRACT 10836

EC 01 0836 ED 002 845
 Publ. Date 59 109p.
 Harris, Dale B.; Shechtman, Audrey
A Study of the Modification of Parental Attitudes toward an Understanding of Mentally Retarded Children.
 Minnesota University, Minneapolis, Institute Of Child Development
 Office Of Education (DHEW), Washington, D. C.
 EDRS mf,hc
 OEC-SAE-7774 CRP-365

Descriptors: exceptional child research; mentally handicapped; family (sociological unit); counseling; family counseling; mental retardation; family problems; parent attitudes; day care services; small group instruction; parent education; group therapy; trainable mentally handicapped

The effect of contact with personnel of a day care center was compared with various methods of counseling in assisting parents of trainable retarded children to adjust to the family problems created by the retardation. Major objectives were as follows: to compare attitude change among parents who obtain counseling through incidental contacts with personnel in a day center and through a small group discussion meeting held regularly at the day care center; to compare attitude change among students whose parents were subjected to the varying counseling patterns; to compare factual information gains among the three parent groups; and to analyze the change among parents in the three groups in relation to the personality of the parent, the parent's level of education, and the severity and type of defect of the child. The findings were essentially negative. No evidence could be developed that one method was superior to others, or, indeed, that any group showed significant gain on any information, attitude, or skill variable. Nevertheless, the indirect evidence acquired seemed significant. Parents seemed to benefit in self feeling and self attitude through agency contact. More lengthy contact between agencies and parents was therefore recommended. (JL)

ABSTRACT 11021

EC 01 1021 ED N.A.
 Publ. Date Feb 67 4p.
 White, James C., Jr.; Taylor, Donna J.
Noxious Conditioning As a Treatment for Rumination.
 Western Carolina Center, Morganton, North Carolina

EDRS not available
Mental Retardation; V5 N1 P30-3 Feb 1967

Descriptors: exceptional child research; mentally handicapped; behavior; reinforcement; operant conditioning; physical development; electrical stimuli; behavior change; institutionalized (persons); custodial mentally handicapped; negative reinforcement

Two severely mentally retarded, non-communicative ruminators, a 23-year-old female and a 14-year-old male, were administered electric shock as a consequence for ruminating gestures. The female was involved in the study for 30 days while the male was fully or partially involved for 2 1/2 months. The shock was a distracting device which interfered with the ruminating syndrome. However, the reduction in rumination was extremely variable from day to day. No functional relationship between shock and rumination was reported, as extraneous environmental factors also served to distract. At termination of the treatment, the female showed a 15% weight increase over her previous 45 pounds, a reduction in akinetic seizures, and an increase in liquid intake. The male subject showed a small weight gain, counteracting a 31 pound loss over several preceding months. (TL)

ABSTRACT 11101

EC 01 1101 ED N.A.
Publ. Date Jun 65 6p.
Rordon, Chester E.; Hollis, John H.
Redesigning a Cottage Unit for Better Programming and Research for the Severely Retarded.
Parsons State Hospital And Training Center, Kansas;
Kansas University, Lawrence, Parsons Research Project
National Institute Of Mental Health, Bethesda, Maryland
EDRS not available
Mental Retardation; V3 N3 P16-21 Jun 1965

Descriptors: exceptional child research; mentally handicapped; behavior change; custodial mentally handicapped; institutionalized (persons); institutional facilities; design needs; self care skills; attendant training; perceptual motor coordination; stimulus behavior; institutional research

To meet needs evident at the state hospital and training school, a system of care, treatment, and training for the severely mentally handicapped was developed. Subjects were 18 girls, aged 6 to 12, with IQ's less than 25. The cottage unit in which the girls lived was modified from a single large room, which appeared to limit social interaction between the girls and the aides, to provide environmental structure and control. A cubicle system was designed, but later abandoned to facilitate monitoring; an operant area with three large tables was then established and found successful in keeping the subjects off medication and out of diapers. A 12-session training program was conducted for the aides in

methods of observation, reinforcement, and grouping; interaction increased and personnel turnover decreased. Feeding training was also given the subjects, nine of whom did not spoon feed themselves; after 18 months, all 18 achieved self feeding. Additional progress was made in other self care skills over 3 years of the study. Studies were also conducted concerning perceptual motor skills, effects of social and nonsocial stimuli on behavior, communication behavior, social dominance, and differential responses to social stimuli. Three figures and two photographs present the architectural modifications. (JD)

ABSTRACT 11225

EC 01 1225 ED 002 870
Publ. Date 31 May 60 66p.
Meyerson, Lee; Michael, John L.
The Measurement of Sensory Thresholds in Exceptional Children, An Experimental Approach to Some Problems of Differential Diagnosis and Education with Special Reference to Hearing. Monographs in Somatopsychology, Number 4.
Houston University, Texas
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc
CRP-418

Descriptors: exceptional child research; mentally handicapped; tests; perception; trainable mentally handicapped; auditory training; auditory perception; auditory tests; audiometric tests; hearing loss; aurally handicapped; perception tests; audition (physiology); physically handicapped; testing; reinforcement; operant conditioning; auditory evaluation

To devise a nonverbal and nonlanguage procedure for testing hearing in which impairment in discriminating pure tones at threshold levels would not be confused with impairment of auditory sensitivity, operant conditioning techniques were applied to trainable mentally retarded, normal, and physically handicapped children in the measurement of pure tone hearing thresholds. Results were compared with the thresholds obtained previously by audiometrists experienced in examining exceptional children with conventional methods. A panel equipped with levers was used which, when operated upon sound, dispensed reinforcers. When the subject pushed a specific lever, reinforcers appeared and sound discontinued. Sound came from earphones or loudspeakers and was controlled by an observing operator. The operant conditioning procedure provided valid and reliable measurements of hearing thresholds in the mentally retarded children. The results obtained, after experimentation with 67 children, supported the belief that the procedure was an effective one. (GC)

ABSTRACT 11229

EC 01 1229 ED 002 869
Publ. Date 59 110p.
Cain, Leo F. And Others
Study of the Effect of Special Day Training Classes for the Severely

Mentally Retarded. Final Report of Phase II.

San Francisco State College, California
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc
OEC-SAE-6439 CRP-416

Descriptors: exceptional child research; behavior; personality; family (sociological unit); mentally handicapped; behavior change; behavior rating scales; family relationship; educational programs; special classes; parent attitudes; social adjustment; social development; trainable mentally handicapped; interpersonal competence; institutionalized (persons); placement; public schools; institutional schools

The second phase of a three-part report on social competency and parent adaptability, this study assessed changes in the behavior of severely retarded children as a result of school attendance. The subjects were placed in an experimental group of school children and a control group of nonschool children. All the children were 5 to 12 years old and had IQ's between 25 and 55. The school children attended special classes in public schools and institutions, and the nonschool children lived either at home or in institutions. The social competency was compared between these children, and the parent adaptability was compared between parents of school children and nonschool children. Two new instruments were developed: the San Francisco Social Competency Scale and the Scale for Parent Adaptability. Information included data from interviews, home visits, family characteristics (age, education, and income), and intelligence tests. The social competency scores considered self help, initiative-responsibility, social skills, communication, and favored institutionalized children, both school and nonschool. The parent adaptability scores included motivation, empathy, flexibility and adaptability, and favored the experimental group (parents with children in school). Parents of institutional children were not graded. (GC)

ABSTRACT 11232

EC 01 1232 ED 002 979
Publ. Date 58 119p.
Cain, Leo F. And Others
Study of the Effect of Special Day Training Classes for the Severely Mentally Retarded, March 15, 1957-June 30, 1958.
San Francisco State College, California
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc
OEC-SAE-6439 CRP-109

Descriptors: exceptional child research; mentally handicapped; behavior; family (sociological unit); program planning; day programs; parent attitudes; parent child relationship; institutional schools; public schools; behavior change; special classes; educational programs; social attitudes; institutional environment; trainable mentally handicapped; placement;

interpersonal competence; administration; program evaluation; San Francisco Social Competency Scale; Parent Adaptability Scale

The purposes of the project were to evaluate the behavioral changes that take place within the public and institutional school populations and nonschool populations of severely retarded children, and to evaluate the changes in parent attitude and family adjustment of the parents. This report was confined to the first phase of an ongoing project and was primarily concerned with the major aspects of the planning period: the experimental rationale, the experimental design, and the development of instruments. The experimental design constituted a comparison of the social competency development of severely mentally retarded children in four settings: community school, community nonschool, institutional school, and institutional nonschool. Subjects in all of the groups aged from 6 through 12, had IQ's from approximately 25 through 55. The social competency of these children was determined at the initiation and completion of the 2-year experimental period. The parents of both community samples were interviewed during this same period in order to assess changes in parental adaptability. The two instruments developed were the San Francisco Social Competency Scale and the Parent Adaptability Scale. (GC)

ABSTRACT 11236

EC 01 1236 ED 002 980
Publ. Date 58 83p.
Dunn, Lloyd M.; Hottel, John V.

The Effectiveness of Special Day Class Training Programs for Severely (Trainable) Mentally Retarded Children.

George Peabody College For Teachers, Nashville, Tennessee
Office Of Education (DHEW), Washington, D. C.

EDRS mf,hc
OEC-SAE-6425 CRP-103

Descriptors: exceptional child research; mentally handicapped; behavior; family (sociological unit); trainable mentally handicapped; placement; family relationship; day programs; self care skills; parent child relationship; behavior change; educational programs; special classes; children; behavior development; vocabulary development; intellectual development

The objective was to test the hypotheses that day class training would produce desirable changes in the behavior of the trainable mentally retarded children over and above those which result when the child remains at home and has no training in school setting, and that school placement of such children would produce desirable changes in the home adjustment of the families involved. First a picture vocabulary scale was developed to measure changes in this aspect of the development of trainable children. Then the subjects were identified, and the experimental design was carried out. In spite of some positive

trends, results indicated that the children in the special classes did not make more progress in socialization, intellectual development, self care, or parent child relations than the children who remained at home. However, the special classes as operated appeared to produce greater changes in the high IQ group. Little evidence accrued to support the contention that day class training for trainable children, as presently constituted, is effective. (GC)

ABSTRACT 11329

EC 01 1329 ED 024 162
Publ. Date 60 74p.

Farber, Bernard And Others
Family Crisis and the Decision to Institutionalize the Retarded Child. CEC Research Monograph, Series A, Number 1.

Illinois University, Urbana, Institute For Research On Exceptional Children; Illinois University, Urbana, Department Of Sociology;

Council For Exceptional Children, Washington, D. C.

Illinois Department Of Public Welfare, Springfield, Psychiatric Training And Research Fund

EDRS mf
The Council For Exceptional Children, NEA, 1201 Sixteenth Street, N. W., Washington, D. C. 20036 (\$2.00).

Descriptors: exceptional child research; mentally handicapped; family (sociological unit); attitudes; trainable mentally handicapped; family background; custodial mentally handicapped; family structure; parent attitudes; parent reaction; marital status; educational background; socioeconomic status; placement; decision making; ecological factors; religious factors; social status; siblings; cultural factors

A case study was made by interviewing 268 couples who had at home a child they considered severely mentally retarded (IQ 50 or below, age 15 or below). Three kinds of effect were investigated, including general effect, effect of social setting (variables being social-psychological, social-organizational, and demographic-ecological), and joint effect. Results on the nature of family crisis indicated that in families with high early marital integration, the extent of initial impact of retardation on the husband was inversely related to the current degree of integration, and in the remaining families no such relationship was found; mothers were more willing to place a retarded boy who was an oldest child than one who was an only child; retarded boys had a greater impact on fathers initially and on mothers currently; and, especially for husbands, current impact tended to vary directly with initial impact. Results concerning the parents' willingness to institutionalize the child revealed that the higher the social status, the greater the relative willingness of the husband as compared with that of the wife; in high status families, willingness varied directly with the number of normal children in the family; and the lower the social status,

the greater the relative willingness of mothers of retarded boys as compared with mothers of retarded girls. (JD)

ABSTRACT 11354

EC 01 1354 ED N.A.
Publ. Date Jan 67 5p.

Elkin, Lorne
Predicting Productivity of Trainable Retardates on Experimental Workshop Tasks.

Saskatchewan Training School, Moose Jaw, Canada

EDRS not available

NHG-P-607-5-211

American Journal Of Mental Deficiency; V71 N4 P576-80 1967

Descriptors: exceptional child research; mentally handicapped; vocational rehabilitation; trainable mentally handicapped; institutionalized (persons); prediction; predictive measurement; productivity; task performance; tests

In a study on predicting productivity, 58 subjects (30 males, 28 females; ages 15 to 52; IQ's 20 to 55) completed a series of continuous and quantifiable jobs, including color sorting, form sorting, hand assembly, and tool assembly. Work was carried out under typical shop conditions in the experimental section of the institution's sheltered workshop. Subjects worked 45-minute periods daily for 6 days on each experimental job; for each task, the first day served as a practice period and no further assistance was provided on the remaining days. Productivity scores for each subject on each task were compared to intellectual, psychomotor, biographical, and vocational measures. Results indicated that success on each job was significantly related to success on the other three experimental tasks; no significant differences were found between predictor variables and total work for male and female subjects; better workers of both sexes were characterized by higher intelligence, better psychomotor skills, superior performance on work samples, and better adjustment to work in the cottage; and superior male workers were older and had lived longer in the institution. Research was reported continuing on the development of continuous criteria and a work rating scale with broader applicability. (DF)

ABSTRACT 11411

EC 01 1411 ED N.A.
Publ. Date Jun 69 4p.

Balthazar, Earl E.; Stevens, Harvey A.
Scalar Techniques for Program Evaluation with the Severely Mentally Retarded.

International Association For The Scientific Study Of Mental Deficiency, Montpellier, France

National Institute Of Mental Health (DHEW), Bethesda, Maryland;

Wisconsin State Department Of Health And Social Services, Madison, Special Research Fund

EDRS not available

Mental Retardation; V7 N3 P25-8 Jun 1969

Presented At The First Congress Of The International Association For The Scientific Study Of Mental Deficiency, University Of Montpellier, France, On September 16, 1967.

Descriptors: exceptional child research; mentally handicapped; evaluation methods; custodial mentally handicapped; program evaluation; behavior rating scales; institutionalized (persons); self care skills; interpersonal competence

Because of the requirements imposed by comprehensive programs for severely and profoundly retarded individuals, the Central Wisconsin Colony Scales of Adaptive Behavior were developed. Present findings relate to the mean reliability coefficients of the profile score categories obtained from the Scales as they apply to an ambulant, severely retarded, residential population. Additional findings are concerned with interrater reliability studies and with data provided by a concurrent validity study. In general, the preliminary statistical data were quite consistent and supportive. Further studies are concerned with current investigations of the metric properties of the Scales. (Author)

ABSTRACT 11416

EC 01 1416 ED N.A.
Publ. Date May 69 4p.
Attwell, Arthur A. And Others
Relationship Between the WRAT, a Behavior Guide, and Achievement with Retarded Adolescents.
Los Angeles County Superintendent Of Schools Office, California;
California State College, Los Angeles
EDRS not available
American Journal Of Mental Deficiency; V73 N6 P879-82 May 1969

Descriptors: exceptional child research; trainable mentally handicapped; achievement tests; behavior rating scales; academic achievement; predictive ability (testing); Wide Range Achievement Test; WRAT; Test Behavior Observation Guide

The 1946 edition of the Wide Range Achievement Test (WRAT) was administered to 51 trainable mentally retarded adolescents. One year later, both the 1946 and 1965 editions of the WRAT, along with the Test Behavior Observation Guide, were administered to the same subjects. The 1946 and 1965 editions of the WRAT were so similar as to be considered interchangeable. Certain areas of the Test Behavior Observation Guide (performance rate, attention, effort, and interest) were considered predictive of school achievement, validating previous studies of the retarded with the use of this instrument. The mean pupil gain in achievement during the year was positive, but not significant. (Author)

ABSTRACT 11419

EC 01 1419 ED N.A.
Publ. Date May 69 6p.
Klaser, M. Michael And Others

Responsiveness to Social Reinforcement Among Institutionalized Retarded Children.

Hartford University, Connecticut
Vocational Rehabilitation Administration (DHEW), Washington, D. C.
EDRS not available
American Journal Of Mental Deficiency; V73 N6 P890-5 May 1969

Descriptors: exceptional child research; mentally handicapped; institutional environment; social influences; trainable mentally handicapped; custodial mentally handicapped; staff orientation; reinforcement

Institution A is an institution for the retarded which provides children with much less social interaction than does Institution B. Severely retarded children who were transferred for administrative reasons from Institution A to Institution B were compared to a closely matched group of children who remained in Institution A. It was found that the children who remained in the more depriving institution approached closer and elected to stay longer with a socially reinforcing adult than did the children who were transferred to the less depriving institution. (Author)

ABSTRACT 11429

EC 01 1429 ED N.A.
Publ. Date May 69 7p.
Bricker, William A.; Bricker, Diane D.
Four Operant Procedures for Establishing Auditory Stimulus Control with Low-Functioning Children.
Clover Bottom Hospital And School, Donelson, Tennessee
Office Of Education (DHEW), Washington, D. C.;
National Institute Of Child Health And Human Development, Bethesda, Maryland;
John F. Kennedy Center For Research On Education And Human Development, Nashville, Tennessee
EDRS not available
OEG-7-070218-1639
American Journal Of Mental Deficiency; V73 N6 P981-7 May 1969

Descriptors: exceptional child research; mentally handicapped; auditory evaluation; operant conditioning; audiometric tests; reinforcement; institutionalized (persons); custodial mentally handicapped; testing

Thirty-six institutionalized retardates were placed into matched quads and then randomly assigned to one of four treatments for establishing auditory stimulus control using operant procedures. Each treatment was programed and following criterion acquisition, the subject (S) was given an audiometric evaluation using the same operant response. Prior training with light discrimination did not facilitate learning since the group exposed only to the auditory signal showed a substantial time savings in reaching criterion performance. No differential effect was observed on the auditory evaluation as a result of group assignment. Reliable hearing assessment was obtained for 33 of the S's. (Author)

ABSTRACT 11525

EC 01 1525 ED 029 427
Publ. Date 68 365p.
Missouri Schools for the Retarded, Title I Project. Program Enrichment for State Schools for Retarded.
Missouri Schools For The Retarded
Office Of Education (DHEW), Washington, D. C.
EDRS mf, hc

Descriptors: exceptional child research; mentally handicapped; trainable mentally handicapped; state programs; federal aid; enrichment programs; case histories (education); program evaluation; physical recreation programs; preschool programs; televised instruction; video tape recordings; speech therapy; summer programs; inservice teacher education; parent school relationship; home visits; Elementary and Secondary Education Act Title I Project; ESEA Title I Project; Missouri

Enrichment programs conducted in Missouri state schools for trainable mentally retarded (TMR) children under Title I funding in 1967 are evaluated. Charts give the progress of 153 TMR pupils in the physical fitness programs conducted in three schools while case histories indicate improvement of six children in a prekindergarten enrichment program. The progress of a video tape teaching project is mentioned and two examples of pilot filmstrips developed are given. Reports and case histories submitted by speech teachers who conducted oral communication programs for 105 multiply handicapped TMR children in five day schools are presented. Reported by charts and pupil progress reports are results from a 6-week summer school training program offered by training centers to 542 TMR children; twelve independent studies resulting from the summer program are included. An account is given of an inservice teacher institute on new trends in TMR curriculum development which involved 150 teachers and supervisors. Finally, case histories and teacher reports from two schools which have home school coordinators provide an evaluation of the services obtained to solve children's school and family problems. (SN)

ABSTRACT 11546

EC 01 1546 ED 029 447
Publ. Date 26 Sep 68 24p.
Lown, Irving C., Jr.
Pre-Professional Training in Mental Retardation. Final Report.
Arizona Children's Colony, Coolidge
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf, hc
OEG-0-8-080805-4484 (032)
BR-8-0805

Descriptors: exceptional child research; mentally handicapped; career opportunities; recruitment; work experience programs; summer programs; college students; institutionalized (persons); custodial mentally handicapped; physical therapy; recreational activities; reinforcement; student interests; program

evaluation; changing attitudes; health services; Student Work Experience and Training; SWEAT

To interest students in mental retardation health services careers, 10 eligible prebaccalaureate students were selected to participate in a 10-week summer training program. The first 2 weeks involved orientation to informational and training aspects of mental retardation and exposure to the health services related disciplines of recreational and physical therapy. For the remaining 8 weeks, the students, five in physical and five in recreational therapy, were assigned to an area where no extensive programming of this kind was previously administered. Two cottages consisting of 126 female profoundly retarded residents received an intensive systematic stimulation and training program with supervision by professional representatives. Results indicated that the residents showed improvement in self care abilities, motor behavior and more mature social responsiveness. Evaluation of the students, involving an informational test on mental retardation and a 500-word essay offering a critique and subjective report of the work experience's effect on the students' career intentions, indicated involvement on the part of the students, a sense of professional identification, and acquisition of appropriate skills and attitudes. (Author/JD)

ABSTRACT 11574

EC 01 1574 ED N.A.
Publ. Date 66 104p.
Educational Programming for the Trainable Mentally Retarded. Proceedings of a Conference (Daytona Beach, Florida, August 9-12, 1966).
Florida State Department Of Education, Tallahassee, Exceptional Child Education Section
Office Of Education (DHEW), Washington, D. C.
EDRS not available
Exceptional Child Education, State Department Of Education, Knott Building, Room 319, Tallahassee, Florida 32301.

Descriptors: exceptional child education; mentally handicapped; program planning; trainable mentally handicapped; parent teacher cooperation; educational programs; motivation; reinforcement; teaching methods; educational objectives; communication skills; teacher aides; physical activities; motor development; learning characteristics; educational research; vocational rehabilitation; state programs

A conference of 25 Florida teachers of the trainable mentally retarded surveys the points of view of business and industry, parents and teachers, the community, and the State Department of Education. Aspects of program development discussed are the efficacy and objectives of educational programs for the mentally retarded, teacher and program development, principles of curriculum design, and the use of teacher aides. Motor and language development are considered; and learning and research are related in terms of theories

and principles of learning, the nature and phases of learning and significant research reports on motivation. A map showing the number of teachers in public school programs for the trainable mentally retarded by county is appended. (BW)

ABSTRACT 11621

EC 01 1621 ED N.A.
Publ. Date Aug 67 5p.
Hollis, John H.; Gorton, Chester E.
Training Severely and Profoundly Developmentally Retarded Children.
EDRS not available
Mental Retardation; V5 N4 P20-4 Aug 1967

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; reinforcement; psychomotor skills; prostheses; research reviews (publications); operant conditioning; social reinforcement; self care skills

Research applicable to the training of severely retarded children (IQ under 25) is surveyed. Studies on behavior modification are discussed, covering prosthetic training, perceptual motor skills, operant imitation, social reinforcement, and aversive stimulation. Research on self care skills treats feeding training, toilet training, and behavioral engineering. It is concluded that realistic operational procedures are now available. A bibliography lists 52 references. (Author/JD)

ABSTRACT 11622

EC 01 1622 ED N.A.
Publ. Date Nov 67 3p.
Doepke, Katherine G.
Retarded Children Learn to Sing.
EDRS not available
Music Educator's Journal; V54 N3 P89-91 Nov 1967

Descriptors: exceptional child research; mentally handicapped; music education; teaching methods; trainable mentally handicapped; audiovisual aids; overhead projectors; tape recordings

Tape recordings of five sets of 10 songs each were played for a class of nine trainable mentally handicapped children while they watched the lyrics shown on an overhead projector. Three methods of presentation were used which offered progressively less teacher help; the procedure offering the most help had the greatest success. After using the tapes for 3 months, four of the children knew all the songs. Methods involved in the program are described; effects of the experience are discussed in terms of socialization, memory, reading, and spelling improvement. (BW)

ABSTRACT 11681

EC 01 1681 ED 030 235
Publ. Date 68 18p.
Greenough, Diane
Comprehension and Imitation of Sentences by Institutionalized Trainable Mentally Retarded Children as a Function of Transformational Complexity.
Michigan University, Ann Arbor, Center For Research On Language And Language Behavior;

Mount Pleasant State Home And Training School, Mount Pleasant, Michigan
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
BR-6-1784

Descriptors: exceptional child research; mentally handicapped; transformations (language); comprehension; imitation; cognitive processes; trainable mentally handicapped; institutionalized (persons); mongolism; pictorial stimuli; verbal stimuli; negative forms (language); kernel sentences; sentence structure; complexity level; deep structure; surface structure; language development

The ability of 31 institutionalized trainable mentally retarded mongoloid and nonmongoloid subjects (mean IQ equals 27.5) to comprehend and imitate verbally presented sentences of varying levels of grammatical complexity was examined. Eight stimulus sentences were spoken for four pairs of pictures, simple declarative or kernel, negative, passive, and negative passive. Subjects were asked to select one of a pair of pictures for each sentence and then to repeat the sentences. They correctly comprehended kernel sentences significantly more often than other kinds of sentences. Among nonmongoloid subjects, imitation of sentences to which one optional transformation had been applied was significantly better than imitation of sentences modified by two potential transformations. Chronological age was significantly associated with imitation ability in nonmongoloids (p less than .04); IQ and imitation ability were significantly associated in mongoloids (p less than .05), indicating that the ability to store verbal material for immediate recall is associated with general intellectual or cognitive abilities. (Author/RJ)

ABSTRACT 11704

EC 01 1704 ED N.A.
Publ. Date Nov 66 5p.
Watkins, Ernest O. And Others
A Novel Hearing Test for Retardates with Mental Ages Below Four Years.
EDRS not available
American Journal Of Mental Deficiency; V71 N3 P396-400 Nov 1966

Descriptors: exceptional child research; mentally handicapped; auditory evaluation; trainable mentally handicapped; audiometric tests; test reliability; test validity; tests; intelligence differences; Animal Sound Test

The Animal Sound Test (AST), newly developed for use with trainable mentally handicapped children with mental ages below 4 years was evaluated for validity and reliability; the test, which consisted of vowel-consonant combinations of sound delivered by live voice and matched to appropriate pictures of animals was also compared with two conventional methods of hearing assessment, the Speech Reception Threshold (SRT) and Pure Tone (PT) methods. All three tests were administered to 26 subjects (mean chronological age 108.6 months, mean mental age 37.7 months,

mean IQ 36). Results showed a significant relationship between mental ages and performance on all tests (p less than .05), with the subjects of higher mental ages obtaining the lower threshold. More thresholds were obtained with the AST than with the other methods (100% for the ASF, 63% with the PT, and 90% with the SRT) and the thresholds obtained with the AST were lower and closer to normal thresholds with a significant difference between the means of all three methods on test and retest (p less than .03). The AST gave better results than the SRT or PT methods for both right and left ears with all probabilities significant (p less than .01). Test-retest results were considered reliable for all three methods (reliability ranged from .82 to .91). (T1.)

ABSTRACT 11778

EC 01 1778 ED N.A.
Publ. Date Jan 68 6p.
Tizard, Barbara
Observations of Over-Active Imbecile Children in Controlled and Uncontrolled Environments, II. Experimental Studies.
EDRS not available
American Journal Of Mental Deficiency; V72 N4 P548-53 Jan 1968

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; activities; behavior; hyperactivity; institutionalized (persons); stimulus behavior; environmental influences; physical environment

The effects of stimulus variation and of increasing familiarity with the environment on the amount of locomotion were tested with 19 severely retarded children aged 8 to 10 years, eight of whom were rated as overactive and 11 as not overactive. The amount and nature of movement was observed for each subject in an experiment room for four 5-minute sessions, with and without toys. Results showed that there were no significant differences in the movement scores of the two groups and no significant habituation in the amount of movement recorded over the four sessions for either group. Also, stimulus variation did not affect the overall movement score, although it did affect the nature of the children's activity. Thus, the theory that brain damaged children can be quieted by a low stimulus environment was not supported. (Author/LE)

ABSTRACT 11781

EC 01 1781 ED N.A.
Publ. Date Jan 69 6p.
Milgram, Norman A.; Furth, Hans G.
The Regulatory Role of Language in Systematic Search by Trainable Retardates.
EDRS not available
American Journal Of Mental Deficiency; V72 N4 P620-5 Jan 1968

Descriptors: exceptional child research; mentally handicapped; trainable mentally handicapped; problem solving; logical thinking; reinforcement; learning characteristics

Fifty-three trainable retardates were divided into experimental and control groups (mean chronological ages 16.9 and 15.8, mean mental ages 5.8 and 5.7, respectively). Subjects searched behind covered windows for a candy reward, which they located on the 20th trial. Two sets of 20 trials each were administered. The experimental subjects were instructed to count as they exposed each window; the control group was given no specific instructions and remained silent. Measures were obtained of consecutive responses or the number of times the subjects chose the same window more than once. An analysis of variance of an opening adjacent horizontally to the preceding choice and of repetitive responses or the number of times the subjects selected the same window more than once. An analysis of variance of consecutive responses by set and condition failed to yield either main effect or interaction. A comparison of sets 1 and 2 showed that experimental subjects improved when contrasted with the controls. Results also showed that control subjects made significantly more repetitive responses. (TL)

ABSTRACT 11811

EC 01 1811 ED N.A.
Publ. Date Jan 67 5p.
Karen, Robert L.; Maxwell, Sandra J.
Strengthening Self-Help Behavior in the Retardate.
EDRS not available
American Journal Of Mental Deficiency; V71 N4 P546-50 Jan 1967

Descriptors: exceptional child research; mentally handicapped; trainable mentally handicapped; behavior change; reinforcement; self care skills

A 7-year-old retarded boy (IQ 45) was taught to button a training vest with four buttons (diameters 1, 3/4, 1/2, and 1/4 of an inch) and then to button his own shirt. The examiner gave instructions and showed how to button a button; reinforcements were candy and praise. Time and performance ratings are presented. (LE)

ABSTRACT 11865

EC 01 1865 ED N.A.
Publ. Date Jan 68 8p.
Tizard, Barbara
Observations of Over-Active Imbecile Children in Controlled and Uncontrolled Environments, I. Classroom Studies.

EDRS not available
American Journal Of Mental Deficiency; V72 N4 P540-7 Jan 1968

Descriptors: exceptional child research; mentally handicapped; hyperactivity; behavior rating scales; identification; custodial mentally handicapped; monologism

Two groups of severely subnormal institutionalized children, ages 8 to 10, IQ's around 20, were observed during free play. The first group consisted of nine children rated by teachers and nurses as very overactive; the second group, which served as controls, consisted of 11

rated not overactive. The overactive children moved about significantly more often than the control children but were not rebuked more often nor did they receive more attention from their teachers; they were not more aggressive than the control children, but they made significantly fewer friendly contacts. The classical hyperkinetic syndrome was not seen, rather the overactive children showed a wide range of personality. There was some evidence that they had suffered brain damage of a kind different from that found in the control group. (Author/LE)

ABSTRACT 11868

EC 01 1868 ED N.A.
Publ. Date Jan 68 7p.
Heal, Laird W. And Others
Solution on Simultaneous, Matching-to-Sample, and Successive Discrimination Problems by Retardates.
EDRS not available
American Journal Of Mental Deficiency; V72 N4 P577-83 Jan 1968

Descriptors: exceptional child research; mentally handicapped; trainable mentally handicapped; institutionalized (persons); discrimination learning; learning characteristics

In two experiments to study the solution of simultaneous (SI), matching-to-sample (M), and successive (SU) discrimination problems by mentally retarded children, the problems were so arranged that the particular solution used by the subject was ambiguous. Test trials assessed the solution adopted by the subject. Experimental factors also included two IQ levels and two response loci. Training results were as follows: all problems were learned faster by high IQ (median 43) than by low IQ (median 34) subjects; performance on the SI problem was facilitated by proximal (directly to stimuli) as compared with distal (5 inches from stimuli) response locus; and performance on M and SU problems was unaffected by response locus. Test trial results indicated that the SI problem most frequently was solved by the acquisition of an approach response to the rewarded cue; the M problem most frequently was solved by matching; and the SU problem most frequently was solved by cue-position patterning. (Author/LE)

ABSTRACT 12000

EC 01 2000 ED N.A.
Publ. Date Jan 67 6p.
Riese, Reinhold R.; Lobb, Harold
Discrimination Learning in Retarded Children: Nonreward vs. Reward.
EDRS not available
American Journal Of Mental Deficiency; V71 N4 P536-41 Jan 1967

Descriptors: exceptional child research; mentally handicapped; learning characteristics; reinforcement; discrimination learning; trainable mentally handicapped; rewards; task performance; operant conditioning

To compare the effects of various pre-training procedures on discrimination

learning in retarded children, 60 children (mental ages 2 to 4 1/2, IQ's 20 to 50; mean chronological age 11.4) received nonrewarded trials with negative cues, rewarded trials with positive cues, or neither type of pretraining, preceding standard trials in a two-choice task. Subjects also received pretraining trials with nonreward for responding to irrelevant stimuli; controls received no trials. Results indicated that nonrewarded trials with negative cues facilitated discrimination more effectively than rewarded trials with positive cues although both treatments improved choice behavior; nonreward irrelevant stimuli subjects also made fewer choice errors than controls. The results thus supported the hypothesis that nonreward and negative cues are more relevant to the discrimination disability of these mentally defective children than reward and positive cues; the results also strengthened the possibility that the problem is one of inhibitory deficit rather than attention deficit. (LE)

ABSTRACT 12067

EC 01 2067 ED N.A.
Publ. Date Jun 65 4p.
Roos, Philip
Development of an Intensive Habit-Training Unit at Austin State School.
Austin State School, Texas
EDRS not available
Mental Retardation; V3 N3 P12-5 Jun 1965

Descriptors: exceptional child research; mentally handicapped; reinforcement; self care skills; institutions; positive reinforcement; rewards; discrimination learning; institutionalized (persons); attendants; attendant training; inservice programs; institutional personnel; institutional research; pilot projects; operant conditioning; administrator attitudes; teamwork; cooperative planning; Austin State School

A pilot project to develop self-help skills in 30 severely retarded children, aged 6 to 12 years, utilized operant conditioning techniques. Additional objectives were the training of attendants and the development of new procedures and equipment. Each child was assigned to a specific attendant on each of three shifts who attempted to shape behavior by the method of successive approximations, reinforcing only desired behavior. The physical environment was modified to facilitate discrimination and to simplify desired responses. Improved skills of many of the children and improved attitudes of the attendants were apparent although no quantitative results were derived. Project success depended upon staff acceptance, regarding the project as a learning situation, using the team approach, involving the whole institution in the project, and supporting the project by administrative participation. Six references are listed. (RK)

ABSTRACT 12090

EC 01 2090 ED N.A.
Publ. Date Jul 69 5p.
Gallagher, Joseph W.

Short-Term Recall of Sentences in Normal and Retarded Children.

EDRS not available
American Journal Of Mental Deficiency; V74 N1 N57-61 Jul 1969

Descriptors: exceptional child research; mentally handicapped; recall (psychological); transformations (language); retention; language ability; trainable mentally handicapped; age differences; average students

The present study employed two groups of normal children and two groups of retarded children. Each subject was presented with a series of sentences. The subject was asked to recall three linguistically different sentences after either a 0, 8, or 15 second delay. The results indicated that the older normal group and the matched mental age (MA) retardate group perform similarly on all three types of sentences at 0 second delay. With the two longer delay intervals, the older normals perform better than the matched-MA retardates on more complicated sentences. Comparisons between the young normal and matched-MA retardate groups indicated that the young normals perform better than the matched retardates at all intervals and for all sentence types. (Author)

ABSTRACT 12092

EC 01 2092 ED N.A.
Publ. Date Jul 69 6p.
Mulhern, Thomas; Baumeister, Alfred A.

An Experimental Attempt to Reduce Stereotypy by Reinforcement Procedures.

EDRS not available
American Journal Of Mental Deficiency; V74 N1 P69-74 Jul 1969

Descriptors: exceptional child research; mentally handicapped; behavior change; reinforcement; custodial mentally handicapped; operant conditioning; behavior patterns

Stereotyped behavior is defined as a constant repetition of responses that have no apparent adaptive consequences for the organism. The research reported here attempted to reduce this behavior in two severely retarded, brain-damaged subjects. Two experiments were conducted in which reinforcement was made contingent upon sitting still. Discriminative stimuli were provided to inform the subjects that no reinforcement would be forthcoming while they engaged in stereotyped behavior. The overall effect of these treatments was a reliable reduction in the rate of activity for each subject. (Author)

ABSTRACT 12094

EC 01 2094 ED N.A.
Publ. Date Jul 69 18p.
Gardner, William I.

Use of Punishment Procedures with the Severely Retarded: A Review.

EDRS not available
American Journal Of Mental Deficiency; V74 N1 P85-103 Jul 1969

Descriptors: exceptional child research; mentally handicapped; reinforcement;

custodial mentally handicapped; negative reinforcement; research reviews (publications); behavior change; behavior problems; electrical stimuli

Behavior treatment procedures involving aversive consequences have been used with increased frequency in work with the severely and profoundly retarded. Review of these punishment studies suggests a cautious conclusion that such procedures may produce desirable behavior change. In addition, there is some evidence that side effects of negative emotional states and disruption of social relationships are not necessary results of punishment techniques. (Author)

ABSTRACT 20014

EC 02 0014 ED 016 339
Publ. Date Feb 67 136p.
Crosson, James E.; DeJung, John E.

The Experimental Analysis of Vocational Behavior in Severely Retarded Males.

Oregon University, Eugene;
Fairview Hospital And Training Center, Salem, Oregon
EDRS mf, hc
OEG-32-47-0230-6024
BR-6-8066

Descriptors: exceptional child research; mentally handicapped; vocational rehabilitation; reinforcement; trainable mentally handicapped; custodial mentally handicapped; residential schools; operant conditioning; positive reinforcement; learning characteristics; activity learning; job training

Working from a population of severely and profoundly retarded residential school patients, an attempt was made to devise an experimental program for training subjects on selected workshop tasks. Task analysis was employed to describe the respective vocational environments and to specify behavioral requirements. Training programs based upon the Skinnerian principles of shaping, operant discrimination, and chaining of responses were then developed. A preliminary study was conducted to determine the response acquisition characteristics of a random sample of 10 subjects. The data suggested that the acquisition of complex chains of over 100 discrete behaviors was reflected in positively accelerated exponential curves. A second study was conducted to test the effects of two reinforcement procedures on the maintenance of the acquired chains, employing two groups of 11 randomly selected subjects. The control group was exposed to relatively low but constant levels of social reinforcement. The experimental group received extrinsic (token) reinforcers delivered in accordance with prescribed schedules. The results suggested that scheduled extrinsic reinforcement maintained higher and more stable rates of vocational behavior than essentially non-contingent social reinforcement. (AA)

ABSTRACT 20033

EC 02 0033 ED 020 609
 Publ. Date 67 14p.
 Brethower, Dale M.
A Report on Contingency Management of Verbal Behavior.
 Center For Research On Language, Ann Arbor, Michigan
 EDRS mf,hc
 OEC-3-6-061784-0508
 BR-6-1784

Descriptors: exceptional child research; mentally handicapped; reinforcement; trainable mentally handicapped; verbal operant conditioning; verbal stimuli; language development; language fluency; behavior change; operant conditioning; positive reinforcement; preschool children

The study investigated some of the relationships between a child's verbal behavior and environmental events necessary in acquiring language. Two trainable retardates (from a group of six, aged 3-6 to 5) with a functional vocabulary of no more than two or three words were seen individually in 20- to 30-minute sessions twice a week during a 4-month period. During most sessions the subjects had access to six wooden blocks, a pad or paper, a crayon, and a packet of 4x6 cards. The experimenter was usually seated at a table. Procedures varied with each child, but all were crude contingency-management procedures. The major dependent variable was the frequency of voiced vocalizations by the two subjects. Echoing voiced vocalizations resulted in an increase in the frequency of vocalizations. Eye fixation between the subject and the experimenter increased when positively reinforced (changing facial expression or waving the hand). One subject learned to respond to the command t---come. The other subject performed a color discrimination task. Data interpretation was difficult due to weakness in procedures for measurement of the dependent variables. Sessions are related, and three figures provide descriptive graphs. Seven references are cited. (AAJJD)

ABSTRACT 20086

EC 02 0086 ED N.A.
 Publ. Date Sep 69 4p.
 Congdon, David M.
The Vineland and Cain-Levine: A Correlational Study and Program Evaluation.
 EDRS not available
 American Journal Of Mental Deficiency; V74 N2 P231-4 Sept 1969

Descriptors: exceptional child research; mentally handicapped; correlation; tests; trainable mentally handicapped; social maturity; interpersonal competence; Vineland Social Maturity Scale; Cain Levine Social Competency Scale

The progress of 23 trainable male subjects in a 1-year institutional training program was evaluated by a test-retest procedure with the Cain-Levine and Vineland. Initially, the instruments were found to be significantly correlated with each other and MA. Both scales indicat-

ed improvement in Social Competency but the Cain-Levine had the additional advantage of discriminating between areas of progress which corresponded to program emphasis. Initially less competent subjects achieved more over the 1 year than did the initially more competent subjects. (Author)

ABSTRACT 20088

EC 02 0088 ED N.A.
 Publ. Date Sep 69 7p.
 Bricker, William A. And Others
Discrimination Learning and Learning Set with Institutionalized Retarded Children.
 EDRS not available
 American Journal Of Mental Deficiency; V74 N2 P242-8 Sept 1969

Descriptors: exceptional child research; mentally handicapped; discrimination learning; institutionalized (persons); reinforcement; task performance; trainable mentally handicapped; custodial mentally handicapped

A two-by-two analysis of variance design was used and included the dimensions of fading versus no fading and position-extinction versus no extinction. Sixteen institutionalized retarded children were assigned to one of the four treatment groups and were given 96 training problems and 32 test problems. The results indicated each of the three experimental procedures produced fewer errors across problem blocks than did the control procedure. Analysis of the test data indicated the experimental procedures facilitated the learning of individual problems but not the acquisition of learning set. (Author)

ABSTRACT 20093

EC 02 0093 ED N.A.
 Publ. Date Sep 69 4p.
 Massey, Phillip S.; Insalaco, Carl
Aversive Stimulation as Applied to Discrimination Learning in Mentally Retarded Children.
 EDRS not available
 American Journal Of Mental Deficiency; V74 N2 P269-72 Sept 1969

Descriptors: exceptional child research; mentally handicapped; discrimination learning; negative reinforcement; institutionalized (persons); response mode; reinforcement; trainable mentally handicapped

This study investigated the relationship between the discriminative aspects of aversive stimulation and discrimination learning in institutionalized retarded children. Four matched groups were given various combinations of candy reinforcers and aversive stimulation, in a simple discrimination learning task. The results demonstrated that aversive whine noise can, under certain conditions, aid acquisition of a response. Its greatest facilitating effect is when it functions as a cue for an incorrect response. In addition when associated with a correct response, aversive stimulation also facilitates acquisition. (Author)

ABSTRACT 20096

EC 02 0096 ED N.A.
 Publ. Date Sep 69 3p.
 Webb, Ruth C.
Sensory-Motor Training of the Profoundly Retarded.
 EDRS not available
 American Journal Of Mental Deficiency; V74 N2 P283-95 Sept 1969

Descriptors: exceptional child research; mentally handicapped; sensory training; institutionalized (persons); custodial mentally handicapped; minimally brain injured; behavior problems; behavior rating scales; perceptual motor learning; AAMP Index

Thirty-two profoundly retarded and institutionalized children with encephalopathy were given sensory-motor training for 5 to 10 months. Training techniques to develop motor reactions to sensory stimulation are outlined. Clinical analysis of changes between pre- and post-treatment behavior tended to be more meaningful than the statistical comparison. This is attributed to the dissimilarity between measuring instruments used. A tentative theory underlying the application of these sensory-motor techniques to the profoundly retarded is presented as a point of departure for future theory formulations. (Author)

ABSTRACT 20105

EC 02 0105 ED N.A.
 Publ. Date Aug 66 4p.
 Jaslow, Robert I. And Others
Criteria for Admission to Institutions for the Mentally Retarded.
 EDRS not available
 Mental Retardation; V4 N4 P2-5 Aug 1966

Descriptors: exceptional child research; mentally handicapped; institutions; admission criteria; physically handicapped; custodial mentally handicapped; trainable mentally handicapped; one parent family; antisocial behavior; multiply handicapped; institutionalized (persons); Plymouth State Home and Training School

To identify retardates on the waiting list whose needs would be better served by the community than by the institution, the following criteria for admission were proposed: physically handicapped with neuromuscular deteriorating diseases, weight above 35 pounds, or tube feeding required; asocial behavior after the age of 8 years; profound retardation after age 5 or severe retardation after age 8; and, in the single or no-parent home, profound or severe retardation after age 4. When these criteria were applied to the 300 children, all under 11 years of age, who had been placed in a state home and training school, it was found that 96 should have been admitted immediately, 99 admitted later, and 105 should not have been admitted. (JA)

ABSTRACT 20107

EC 02 0107 ED N.A.
 Publ. Date Aug 66 3p.
 Edwards, Marion; Lilly, Robert T.

Operant Conditioning: An Application to Behavioral Problems in Groups.

EDRS not available
Mental Retardation; V4 N4 P18-20 Aug 1966

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; young adults; females; operant conditioning; reinforcement; transfer of training; behavior change; eating habits; institutionalized (persons)

Operant conditioning was used to change mealtime behavior of 26 assaultive female patients (IQ's 5 to 25, age 14 to 38) in a closed ward. All were ambulatory and hyperactive, expressed little verbal language, and all but three were self feeders. Conditioning required changing mealtime procedures by inviting groups of patients into the dining room when food was ready instead of admitting only a few at a time. Initially, satisfaction of hunger was used as motivation and food as reinforcer; later verbal support and approval became the reinforcer with food available upon demand. Subjects who took food from others were removed from the dining room. Mealtime behavior improved markedly and fewer employees were needed to supervise it. However, the improved behavior did not transfer to other times of the day. (JA)

ABSTRACT 20113

EC 02 0113 ED N.A.
Publ. Date Dec 65 3p.
Baumeister, Alfred; Klosowski, Raymond

An Attempt to Group Toilet Train Severely Retarded Patients.

EDRS not available
Mental Retardation; V3 N6 P24-6 Dec 1965

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; reinforcement; behavior change; institutionalized (persons); attendant training

Group toilet training was given to 40 profoundly retarded males, aged 10 to 25. Attendants received instruction in the project and in reinforcement principles. Subjects were reinforced with food or other appropriate items. The training lasted 70 days. By the fifth day, behavior began to improve. When subjects were allowed a change in their environment, successes were practically eliminated. Success with the program was judged incomplete. (GB)

ABSTRACT 20297

EC 02 0297 ED N.A.
Publ. Date Nov 69 6p.

Bradley, Betty Hunt

Responses of Retarded Children on Three and Two Dimensional Visual Tasks.

EDRS not available
Exceptional Children; V36 N3 P165-70 Nov 1969

Descriptors: exceptional child research; mentally handicapped; visual perception; trainable mentally handicapped;

institutionalized (persons); perceptual motor coordination; pictorial stimuli; stereopsis; individual differences; learning characteristics

This study attempted to evaluate the performance of two groups of mentally retarded children on 3 dimensional objects and 2 dimensional colored pictures. A total of 30 mentally retarded children residing at the Columbus State Institute were divided into 2 groups paired on perceptual functioning in relation to visual motor tasks. The groups were also paired on CA, MA, and IQ. In random order, 180 objects and colored pictures (90 of each) were presented. Results showed that subjects with severe visual motor handicaps scored significantly lower than those who had minimal visual motor handicaps on identification of 3 dimensional objects and total scores. There were no significant differences on the picture scores between the 2 groups. Implications of these results in terms of the Gellner theory are discussed. (Author)

ABSTRACT 20345

EC 02 0345 ED N.A.
Publ. Date Aug 69 6p.

Campbell, Donald E.

Circulorespiratory Endurance of Three Age Groups of Institutionalized Trainable Mentally Retarded Males.

EDRS not available
Training School Bulletin; V66 N2 P60-5 Aug 1969

Descriptors: exceptional child research; mentally handicapped; physical fitness; cardiovascular system; task performance; psychomotor skills; trainable mentally handicapped; muscular strength

This investigation sought to evaluate circulorespiratory endurance of three age groups of institutionalized trainable mentally retarded (TMR) males by means of endurance quotient. Three physical performance items, the 25-yard run for time, the 300-yard run for time, and the standing broad jump, were administered. The time for the 300-yard run and the extended time for the 25-yard run were used as criterion measures to obtain the endurance quotient. This derived measure and the standing broad jump score were subjected to a single classification analysis of variance for three subject groups. The conclusion is advanced that the circulorespiratory endurance of institutionalized TMR males does not vary by levels of chronological development. (Author)

ABSTRACT 20470

EC 02 0470 ED N.A.
Publ. Date 66 6p.

Lloyd, Lyle L.; Reid, Michael J.

The Reliability of Speech Audiometry with Institutionalized Retarded Children.

EDRS not available
Journal Of Speech And Hearing Research; V9 N3 P450-5 Sept 1966

Descriptors: exceptional child research; mentally handicapped; institutionalized (persons); testing; speech evaluation; au-

diometric tests; auditory evaluation; test reliability

To study the reliability of audiometric procedures of establishing speech reception thresholds (SRT), 12 moderately and 12 severely retarded subjects, ranging in age from 6 to 21 years, were randomly selected from an institutionalized population. All tests were administered by the same qualified audiometrist using calibrated equipment. Results show that all subjects had 6 decibels (dB) or less of variation from test to retest. The authors conclude that SRT audiometry for mentally retarded children is slightly more reliable than pure tone audiometry. (MK)

ABSTRACT 20496

EC 02 0496 ED N.A.
Publ. Date Mar 67 5p.

Minge, M. Ronald; Ball, Thomas S.

Teaching of Self-Help Skills to Profoundly Retarded Patients.

EDRS not available
American Journal Of Mental Deficiency; V71 N5 P864-8 Mar 1967

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; self care skills; teaching methods; operant conditioning; reinforcement; behavior change

Six profoundly retarded girls aged 8 to 15 years (IQ range 10-24) were taught self help skills by psychiatric technicians following a step-by-step program in which each task was broken down into component parts for incremental acquisition at a pace consistent with patients' abilities. Training was given for 2 months in two individual 15-minute sessions per day, and the girls' correct responses to directions were reinforced with food (they earned breakfast and lunch) and praise. Comparison of situational test results showed significant improvement in taught skills (p equals .001). The subjects had significantly higher test scores than did a group of control subjects (p equals .01). The feasibility of teaching self help skills to profoundly retarded patients was demonstrated. (LE)

ABSTRACT 20723

EC 02 0723 ED N.A.
Publ. Date Jan 67 2p.

Sellin, Donald F.

The Usefulness of the IQ in Predicting the Performance of Moderately Mentally Retarded Children.

EDRS not available
American Journal Of Mental Deficiency; V71 N4 P141-2 Jan 1967

Descriptors: exceptional child research; mentally handicapped; academic achievement; testing; sex differences; intelligence tests; trainable mentally handicapped; intelligence quotient; TMR Performance Profile for the Severely and Moderately Retarded

To discern the usefulness of sex, chronological age, and IQ in the prediction of the performance of a group of 44 moderately retarded children, the TMR Performance Profile for the Severely and

moderately Retarded (TMRPP) was utilized. The results showed that the TMRPP may be free of sex bias and measured functional attainments not associated with measured intelligence and it could be assumed that the test reflected achievement associated with increasing length of school enrollment. Within the context of the narrow range of IQ and the broad CA range of the sample, it can be concluded that the number of years in school enrollment is associated with TMRPP attainments rather than with measured intelligence. (WW)

ABSTRACT 20754

EC 02 0754 ED N.A.
Publ. Date May 67 12p.
Hollis, John H.
Development of Perceptual Motor Skills in a Profoundly Retarded Child: Part I, Prosthesis.
Parsons State Hospital And Training Center, Kansas, Bureau Of Child Research;
Kansas University, Lawrence
EDRS not available
NICHHD-00870-03
American Journal Of Mental Deficiency; V71 N6 P941-52 May 1967

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; institutionalized (persons); reinforcement; operant conditioning; perceptual motor coordination; task performance; conditioned response; behavior change; Lindsley Operant Behavior Equation

To develop simple perceptual motor skills in a severely developmentally institutionalized child, operant behavioral techniques were used. The subject was an 11-year-old girl with a Vineland social quotient of 10 who exhibited no verbal behavior or changes in facial expression and for whom candy or other stimulus objects did not serve as reinforcers. Careful diet control was initiated to insure the feasibility of food as a potential reinforcer. Ogden Lindsley's operant behavioral equation was used to diagram the behavioral analysis; the four components are antecedent event (stimulus), movement (response), arrangement (contingency), and subsequent event (consequence). The operant reflex was prosthesised by building the missing components. Stimulus building accomplished by classical conditioning, response building resulting from external manipulation, and response shaping through differential reinforcement as well as contingency and consequence building comprised the operant component development procedure. The prosthetic techniques successfully taught the child to reach, contact, grasp, and hand the stimulus object to the examiner. Three subsequent experiments were successful in developing high level proficiency on Bent-wire and patterned string problems with the subject's right or left hand. Additional data are reported on the effects of contingency and consequence change and of bilateral transfer of training with the same subject. (JM)

ABSTRACT 20756

EC 02 0756 ED N.A.
Publ. Date May 67 11p.
Hollis, John A.
Development of Perceptual Motor Skills in a Profoundly Retarded Child: Part II, Consequence Change and Transfer.
Parsons State Hospital And Training Center, Kansas, Bureau Of Child Research;
Kansas University, Lawrence
EDRS not available
NICHHD-00870-03
American Journal Of Mental Deficiency; V71 N6 P953-63 May 1967

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; institutionalized (persons); reinforcement; perceptual motor coordination; transfer of training; skill development; operant conditioning; task performance; eye hand coordination; behavior change; Lindsley's Operant Behavior Equation

An 11-year-old severely retarded girl was shifted from a continuous reinforcement schedule (CRF) to a fixed ratio-40 schedule with little decrement in performance from the CRF baseline. However, satiation and lack of reinforcement resulted in a drop in the subject's performance to near zero. A second experiment tested for bilateral transfer with the four hand-eye combinations. Before training the subject had no motor skill with the left hand; results for the Bent-Wire problems showed near zero transfer from the right to left hand while skill developed with the left hand transferred better than 90% to the right hand. These experiments demonstrated that contingency and consequence change did not reduce a retarded child's perceptual motor performance and that bilateral transfer of perceptual motor skills was successful when there was an intact operant reflex in the limb. (JM)

ABSTRACT 20757

EC 02 0757 ED N.A.
Publ. Date May 67 11p.
Friedlander, Bernard Z. And Others
Automated Psychological Evaluation with Severely Retarded Institutionalized Infants.
Western Reserve University, Cleveland, Ohio, Mental Development Center
National Institute Of Mental Health (DHEW), Bethesda, Maryland
EDRS not available
MH-08049; MH-01461
American Journal Of Mental Deficiency; V71 N6 P909-19 May 1967

Descriptors: exceptional child research; mentally handicapped; custodial mentally handicapped; institutionalized (persons); preschool children; multiply handicapped; behavior; attention; discrimination learning; perception; feedback; evaluation methods; task performance; testing; measurement instruments; equipment; perceptual motor learning; PLAYTEST Equipment

To assess the effectiveness of an automated operant behavior play device in

examining sensorimotor manifestations of attention, purposefulness, response selectivity, and adaptive behavior in severely retarded infants, two boys (ages 2.5 and 3.5) with mental ages below 10 months were studied. The boys played in a familiar play environment with an automated toy that provided controlled programs of audio-visual feedback; measured responses indicated the child's changing ability to discriminate differences and make adaptations. Manipulation of knobs on the panel of PLAYTEST Model 65-A elicited a single chime or an ascending sustained organ scale. Both subjects were unusually attentive over relatively long periods of time to the toy, acquired and maintained patterns of selective activity, and successfully adapted this selective activity to changing conditions. Two other subjects made too few responses for analysis. Conclusions were that PLAYTEST procedures offer advantages in evaluating sensorimotor abilities in severely handicapped infants and young children. (JM)

ABSTRACT 20923

EC 02 0923 ED 027 654
Publ. Date 60 78p.
Hudson, Margaret
An Exploration of Classroom Procedures for Teaching Trainable Mentally Retarded Children. CEC Research Monograph, Series A, Number 2.
Council For Exceptional Children, Washington, D. C.;
George Peabody College For Teachers, Nashville, Tennessee
Office Of Education (DHEW), Washington, D. C.
EDRS mf, hc
OEC-SAE-6462

Descriptors: exceptional child research; mentally handicapped; curriculum; teaching methods; trainable mentally handicapped; reinforcement; class management; motivation; class size; teacher evaluation; homogeneous grouping; units of study (subject fields); individual instruction; language development; research needs

To investigate teaching techniques with trainable mentally retarded children, 29 day classes were visited twice; 100-minute observation periods were recorded on tape at each visit. Eight major areas of teaching methods were found: feeling tone, guidance and reinforcement, individual and group control, involvement of children in lesson, motivation, non-verbal teaching, structure of the teaching situation, and teacher centered behavior. Conclusions were that teachers spent a large proportion of time in attempting to get responses from children, acknowledging and encouraging responses, and explaining concepts and activities; nonverbal techniques were greatly used. Indications were that better teaching occurred in smaller groups which had fewer brain injured children and children who were more similar in IQ and closer in age. Of 15 major lesson categories, language development received the most emphasis while practical

arts received the least. Teachers did individualize instruction but tended to work with one child only or the whole class. A teacher competency checklist and categories of lessons covering arithmetic, arts and crafts, dramatization, health and safety, language development, music, occupational education, practical arts, motor development, socialization, science, self help, social studies, sensory training, and mental development are included. (DF)

ABSTRACT 20965

EC 02 0965 ED 033 505
 Publ. Date May 69 48p.
 Gold, Marc William
The Acquisition of a Complex Assembly Task by Retarded Adolescents. Final Report.
 Illinois University, Urbana, Department Of Special Education
 Office Of Education (DHEW), Washington, D. C., Bureau Of Education For The Handicapped
 EDRS mf,hc
 OEG-0-9-232021-0769(032)
 BR-8-8060

Descriptors: exceptional child research; mentally handicapped; discrimination learning; vocational rehabilitation; task performance; trainable mentally handicapped; sheltered workshops; learning characteristics; transfer of training; multisensory learning; educational methods; intermode differences

Sixty-four moderately and severely retarded individuals enrolled in four sheltered workshops learned to assemble a 15 piece and a 24 piece bicycle brake. Training procedures utilized information obtained from the basic psychological research on discrimination learning. One-half of the subjects worked with the parts of the training task brake as they came from the factory (Form Only). The others worked with parts that were color coded (Color Form). Coding consisted of painting that surface of each part that is facing the subject when it is placed in the proper position for assembly. All groups worked with the parts of the transfer task brake as they came from the factory (Form Only). Half of the subjects learned the tasks to a criterion of six correct out of eight consecutive trials, the other half performed 20 trials beyond criterion on the training task brake (overlearning). The Color Form groups learned the training task brake significantly faster than the Form Only groups. No significant overlearning effect was found. (Author)

ABSTRACT 21124

EC 02 1124 ED N.A.
 Publ. Date Nov 69 6p.
 Roos, Philip; Oliver, Margret
Evaluation of Operant Conditioning with Institutionalized Retarded Children.
 EDRS not available
 American Journal Of Mental Deficiency; V74 N3 P325-30 Nov 1969

Descriptors: exceptional child research; mentally handicapped; behavior change; operant conditioning; institutionalized

(persons); custodial mentally handicapped; attendants; reinforcement; program evaluation

The effectiveness of operant conditioning procedures implemented by attendants was evaluated by comparing the progress of three groups of severely and profoundly retarded institutionalized young children. In addition to the experimental and control groups, a placebo group, which received classroom-type training, was included. The results indicated significantly greater improvement in the group trained by operant conditioning. (Author)

ABSTRACT 21127

EC 02 1127 ED N.A.
 Publ. Date Nov 69 8p.
 Balthazar, Earl E.; English, George E.
A Factorial Study of Unstructured Ward Behaviors.
 EDRS not available
 American Journal Of Mental Deficiency; V74 N3 P353-60 Nov 1969

Descriptors: exceptional child research; mentally handicapped; behavior rating scales; institutionalized (persons); custodial mentally handicapped; observation; self care skills; social development; psychometrics

A factor analysis of coping behaviors in a residential population of 288 more severely mentally retarded individuals is reported. Eighteen factors emerged from the study. Each factor represented a behavioral domain within which individual members of the population responded in a consistent manner. The factors were established from 71 subscale items which were furnished by one section of the Central Wisconsin Colony Scales of Adaptive Behavior (Balthazar, Roseen, & English, 1968). Separate tables delineating the intercorrelations of the subscale items and a listing of the factors are provided. The reliability and validity of current testing practices, as well as the scaling methods for measuring direct observations of unstructured ward behaviors are discussed. (Author)

ABSTRACT 21128

EC 02 1128 ED N.A.
 Publ. Date Nov 69 8p.
 Balthazar, Earl E.; English, George E.
A System for the Social Classification of the More Severely Mentally Retarded.
 EDRS not available
 American Journal Of Mental Deficiency; V74 N3 P361-8 Nov 1969

Descriptors: exceptional child research; mentally handicapped; classification; behavior rating scales; institutionalized (persons); custodial mentally handicapped; psychometrics; social development; behavior patterns

This study is a continuation of earlier investigations (Balthazar & English, 1968a, 1968b; Balthazar, Roseen, & English, 1968). Subjects were 288 institutionalized, ambulant, severely and profoundly mentally retarded individuals. Standardized procedures for the direct observation, rating, and scoring of

social behaviors were obtained from the Central Wisconsin Colony Scales of Adaptive Behavior. Previous investigations have been concerned with the determination of the factor structure of ward behaviors. The present study describes a methodology for classifying individual behaviors and for grouping subjects on the basis of the factor scales. Two major groups and 12 subgroups emerged from this investigation. Results are discussed in terms of system for incorporating the behavioral aspects of the AAMD classification on a rank-order basis. (Author)

ABSTRACT 21227

EC 02 1227 ED 002 839
 Publ. Date 59 113p.
 Grace, Alonzo And Others
Measurement of the Educability of Severely Mentally Retarded Children.
 New York University, New York, School Of Education
 Office Of Education (DHEW), Washington, D. C.
 EDRS mf,hc
 OEC-SAE-7783 CRP-332

Descriptors: exceptional child research; mentally handicapped; tests; visual discrimination; intelligence level; predictive measurement; task performance; educable mentally handicapped; psychometrics; learning processes; ability identification; academic ability; retention; transfer of training; diagnostic tests

The purpose of the study was to investigate a testing method for obtaining objective, quantified, predictive measures of educability for mental retardates. The method was designed to measure abilities on which education depends--namely, the ability to learn under training, to transfer the training, and to retain the learning. Two samples were used: a pilot group of 115 and a final group of 114. Subjects in the final group had a mean IQ of 36 and an average age of 95 months. The final test battery was administered individually to each subject and included a test of imitative abilities and memory, a size discrimination test, a shape discrimination test, and two tests of brightness discrimination. All of the subjects received the first four test administrations which yielded pretraining, posttraining, transfer, and retention scores respectively. Of the total sample, 102 took the fifth test series, based on retention. Of these, 36 were available for the last tests, repetitions of the first four tests. Intelligence exerted a greater significant effect on the scores of every test than the factors of age, time spent in school, sex, or medical diagnostic category. The relationship between learning performance and intelligence level was significantly greater on every test than that between intelligence level and initial performance. The ancillary findings suggest the applicability of the materials and training methods developed for the tests to curricular materials and classroom methods, and the suitability of testing used for other groups of children. (JH)

ABSTRACT 21240

EC 02 1240 ED 002 802
 Publ. Date Nov 59 465p.
 Wolfe, William G. And Others
The Evaluation and Development of Techniques for Testing the Visual and Auditory Acuity of Trainable Mentally Retarded Children.
 Texas University, Austin, College Of Education
 Office Of Education (DHEW), Washington, D. C.
 EDRS mf,hc
 CRP-172

Descriptors: exceptional child research; mentally handicapped; tests; trainable mentally handicapped; auditory perception; auditory visual tests; visual perception; vision tests; testing programs; evaluation methods; physical examinations; intelligence; social differences

Audiometric and visual procedures were compared analytically or designed to establish test methods for trainable mental retardates in the IQ range of 23 to 47 and below the mental age of 4 years. The number of subjects was 26 for the auditory program and 25 for the visual. Each of the subjects was studied on an individual basis. Data were collected on their varying social, mental, and physical abilities and then related to their techniques, psychogalvanic skin response audiometry, modified speech reception, and screening techniques. Two visual test batteries were employed, consisting of eight commercially available instruments and 10 modified or constructed tests presented tachistoscopically within limits of exposure time of .01 to 1.0 second, inclusively. All tests were administered to each child on a pretest, training, and posttest basis. The children in the audiometric study responded meaningfully when both speech and pure tones were used as the stimuli. Color and form perception tests were considered meaningful in the visual realm. Implications for further study were provided for both the auditory and visual test areas. Conclusive techniques are needed to detect and remedy physical defects of the trainable retardate. (JH)

ABSTRACT 21244

EC 02 1244 ED 002 783
 Publ. Date 15 Dec 61 195p.
 Hudson, Margaret
Identification and Evaluation of Methods for Teaching Severely Mentally Retarded (Trainable) Children.
 George Peabody College For Teachers, Nashville, Tennessee
 Office Of Education (DHEW), Washington, D. C.
 EDRS mf,hc
 OEC-SAE-6462 CRP-155

Descriptors: exceptional child research; mentally handicapped; teaching methods; classroom techniques; trainable mentally handicapped; classroom environment; teacher evaluation; effective teaching; teaching methods; Tennessee

The objectives of this study were to identify, describe, and categorize specific

methods being utilized by teachers of trainable children in Tennessee; to identify teachers using the various techniques; to develop a preliminary rating scale of teacher competency; to determine whether a relationship exists between methods being used and other relevant variables; and to establish a hypotheses for controlled research on teaching methodology. Teaching methods were identified and categorized through type and observation recordings. Subsequent cluster analysis suggested seven problem areas in teaching trainable children: individual and group control, motivating the children to start and continue working, building a sense of personal worth in the children, structuring or guiding the learning, encouraging cooperative interpersonal interaction, providing for a mind-set or attention, and drawing from the children as opposed to pouring in. Further study of the patterning of teacher techniques was recommended, to clarify problem areas in teaching and to study whether the seven clusters defined in this study exist in other types of classes. Further investigation is needed to discover which teaching techniques would produce the best results in each of the problem areas. (GC)

ABSTRACT 21282

EC 02 1282 ED 002 749
 Publ. Date May 60 189p.
 Peck, John R.; Sexton, C. Lucille
A Comparative Investigation of the Learning and Social Adjustment of Trainable Children in Public School Facilities, Segregated Community Centers, and State Residential Centers.
 Texas University, Austin, College Of Education
 Office Of Education (DHEW), Washington, D. C.
 EDRS mf,hc
 CRP-026

Descriptors: exceptional child research; mentally handicapped; adjustment (to environment); achievement; special classes; elementary grades; public schools; institutional schools; classroom environment; learning readiness; educational opportunities; remedial programs; teaching methods; trainable mentally handicapped

The study sought to determine the feasibility of including the trainable child (IQ 25 to 50, mental age below 8) in the public school program. Three groups of nine trainable children each were placed in a 2-year controlled-classroom program at each of three types of facilities: a typical city elementary school, a locally sponsored center for trainable children, and the state institution for retarded children. Using such data as etiological and family history, medical examination, psychometric and related tests, plus comparative scores of achievement on practical tasks taught, on social maturity scales, and on emotional growth of subjects, an attempt was made to evaluate which type of facility offers maximum growth and progress to the pupils.

The information yielded by this research indicated that trainable children did make significant progress in an organized program which was under the direction of competent teachers, and that there were no significant differences between the level of average overall progress for the three experimental groups. The information obtained from the staff of the public school where one experimental class was housed indicated that the class for trainable children was not considered a disrupting factor nor a negative influence, and that it was accepted by the teachers and the so-called normal children in that building. (GC)

ABSTRACT 21770

EC 02 1770 ED 035 149
 Publ. Date Aug 69 61p.
 Guess, Doug And Others
A Language Development Program for Mentally Retarded Children, Volume I. Final Report.
 Kansas University, Lawrence;
 Kansas Neurological Institute, Topeka
 Office Of Education (DHEW), Washington, D. C., Bureau Of Education For The Handicapped
 EDRS mf,hc
 OEG-0-8-070815-0216
 BR-7-0815

Descriptors: exceptional child research; mentally handicapped; nonprofessional personnel; language development; teacher aids; institutionalized (persons); speech instruction; speech improvement; language instruction; intellectual development; reinforcement; language programs; oral expression; custodial mentally handicapped

The utilization of non-professional personnel as language teachers was investigated using forty residents and an equal number of controls who were matched on the variables of CA, IQ, and Language Age (mean CA 13.28 and mean IQ 33). Two former psychiatric aids were trained as language developmentalists by classroom experiences, informal discussions and reading material pertinent to language acquisition. The language aids were provided with appropriate language development materials and supervised by a speech pathologist. A token reinforcement system was used in all classes. Results showed the children attending language classes made significantly greater raw score gains in the Illinois Test of Psycholinguistic Abilities than did the control group (CG) over the 18 month period. Significantly greater gains in IQ scores were made by the Language Training Group; their mean pre to post IQ score gains were 3.64 points compared to .22 points for the controls. Results suggested greater use of nonprofessional persons in the education of retarded children, while utilizing professionals as consultants. Lesson plans for this project can be found in EC 004 827. (Author/WW)

ABSTRACT 21916

EC 02 1916 ED N.A.
 Publ. Date Mar 70 9p.
 Bricker, William A.; Bricker, Diane D.

Development of Receptive Vocabulary in Severely Retarded Children.

EDRS not available

American Journal Of Mental Deficiency; V74 N5 P599-607 Mar 1970

Descriptors: exceptional child research; mentally handicapped; language development; receptive language; language instruction; language tests

Two procedures for facilitating the development of word control over object choice were compared using young, institutionalized, severely retarded children. A two choice discrimination paradigm was used in which object name indicated the reinforced response. The design assessed the effects of structured versus unstructured procedures in facilitating development of this skill. The results indicated training effects in favor of the structured approaches for those subjects identified as learners, but none of the approaches were able to improve the performance of those identified as nonlearners. Generalization effects related to training were also identified. (Author)

ABSTRACT 21926

EC 02 1926 ED N.A.
Publ. Date Mar 70 8p.

Mitchell, Anna C.; Smeriglio, Vincent
Growth in Social Competence in Institutionalized Mentally Retarded Children.

EDRS not available

American Journal Of Mental Deficiency; V74 N5 P666-73 Mar 1970

Descriptors: exceptional child research; mentally handicapped; interpersonal competence; institutionalized (persons); social development

Two groups of 25 moderately and severely retarded children were evaluated for social-competence development during their first years of institutionalization. Children receiving the routine care characteristic of state institutions made no progress in Vineland social age; consequently, they showed a significant decline of ten points in average social quotient (SQ). Children receiving an additional high-saturation teaching program increased in social age and maintained their preadmission SQs. Both groups were significantly different from normal children in the comparative rate of development in various areas of social competence. Results suggest that young, moderately and severely retarded children require formal teaching in addition to routine attendant care. (Author)

ABSTRACT 22123

EC 02 2123 ED N.A.
Publ. Date May 70 5p.

Hall, Stacy L.; Deacon, Kathryn F.
Effects Noted from the Use of the Frostig Training Program with Trainable Retardates.

EDRS not available

Training School Bulletin; V67 N1 P20-4 May 1970

Descriptors: exceptional child research; mentally handicapped; perceptual motor

learning; visual perception; trainable mentally handicapped; teaching methods; Frostig Program for the Development of Visual Perception

The Frostig Program For the Development of Visual Perception was used with 30 TMR pupils for a seven month period. A control group of 30 TMR pupils followed conventional special class programing. Experimental and control subjects were individually administered the Frostig Developmental Test of Visual Perception, the Draw-A-Man Test (Goodenough), the Stanford-Binet Intelligence Scale, and the reading and arithmetic subtests of the Wide Range Achievement Test in order to determine the effectiveness of the Frostig training program with TMR pupils. The results indicate that the Frostig training program was of more value in specific areas than methods previously employed. (Author)

ABSTRACT 22268

EC 02 2268 ED N.A.
Publ. Date Apr 70 7p.

Guess, Doug And Others

Utilization of Sub-Professional Personnel in Teaching Language Skills to Mentally Retarded Children: An Interim Report.

EDRS not available

Mental Retardation; V8 N2 P17-23 Apr 1970

Presented By The Senior Author At The Annual Meeting Of The Missouri State Teachers Association, Kansas City (November 7, 1968), And The National Convention, Council For Exceptional Children, Denver (1969).

Descriptors: exceptional child research; mentally handicapped; teaching methods; subprofessionals; language instruction; psychiatric aides; institutionalized (persons)

Two psychiatric aides were trained as language developmentalists for small groups of severely and profoundly retarded children residing in a state institution. They were supervised by a speech pathologist who selected and prepared the materials used in the classrooms. Four experimental and control groups were compared over a nine month period: language training and special education, language training only, special education only, and neither language training nor special education. The Stanford-Binet and ITPA were administered to all groups prior to the program and nine months later. Results from these tests are presented with a discussion of the findings. Those who received both language training and special education made the greatest gains. (Author)

ABSTRACT 22319

EC 02 2319 ED N.A.
Publ. Date 64 8p.

Hall, Richard C. And Others

Effects of Stimulus Word Similarity upon Discrimination Learning by Trainable Retarded Children.

EDRS not available

Pennsylvania Psychiatric Quarterly; V4 N4 P12-9 Win 1964

Descriptors: exceptional child research; trainable mentally handicapped; minimally brain injured; mongolism; discrimination learning; visual discrimination; reading; sight vocabulary; sight method

Eighteen mongoloid and 18 brain injured subjects, matched for mental age were tested to determine if the more dissimilar two words are in appearance, the more readily a discrimination will be made and also if subjects can associate the positive stimulus word with a pictorial representation. Subjects were presented with one of three simultaneous word discriminations. CAT was used as the positive stimulus; CAR, CUP, and PIN were used as negative discriminanda. A cat picture was centered above the word stimuli. The low similarity discrimination worked the best performance. Chance performance was shown on the high similarity discrimination. There were no etiological differences. The seven subjects who mastered discrimination to criterion were tested for ability to verbalize cat in response to the word without the picture. Three of the subjects were able to do so immediately, and one day, and one week later. This procedure may suggest a technique for acquisition of a sight vocabulary by the institutionalized trainable mentally handicapped. (MS)

ABSTRACT 22503

EC 02 2503 ED N.A.
Publ. Date Jun 70 4p.

Warren, Sue Allen; Burns, Norman R.

Crib Confinement as a Factor in Repetitive and Stereotyped Behavior in Retardates.

EDRS not available

Mental Retardation; V8 N3 P25-8 Jun 1970

Descriptors: exceptional child research; mentally handicapped; behavior patterns; custodial mentally handicapped; object manipulation; sensory deprivation; crib confinement

Observations were made of 55 severely and profoundly retarded ambulatory children for 20 one-minute intervals per child. Repetitive, stereotyped and object manipulation behaviors were observed under in-crib and out-of-crib conditions. Results generally supported the hypothesis that certain repetitive behaviors occurring more often inside cribs may be partly a function of confinement and the amount of stimulation in the immediate environment. It was suggested that headbanging, which occurred more often outside cribs, may be operant headbanging, learned as a function of reinforcements provided by staff, and apparently as a device to communicate needs in certain nonverbal retarded children. (Author)

ABSTRACT 22504

EC 02 2504 ED N.A.
Publ. Date Jun 70 3p.

Leath, Jack R.; Flournoy, Richard L.

Three Year Follow-Up of Intensive Habit-Training Program.

EDRS not available
Mental Retardation; V8 N3 P32-4 Jun 1970

Descriptors: exceptional child research; mentally handicapped; behavior change; social maturity; custodial mentally handicapped; habit formation; followup studies

Forty profoundly and severely retarded institutionalized girls made significant gains in social maturation during a relatively brief exposure to behavior-shaping techniques. Social maturation was measured by the Vineland Social Maturity Scale (VSMS) and ten categories of a modified VSMS. The present study assessed the current level of social maturation of the same girls and found that all gains registered in the training period were maintained after three years of no formal training. The category measuring eating skills was the only one which showed a significant gain after the training period ended. (Author)

ABSTRACT 22507

EC 02 2507 ED N.A.
Publ. Date Jun 70 3p.
Levine, Martin N.; Elliott, Charles B.
Toilet Training for Profoundly Retarded with a Limited Staff.
EDRS not available
Mental Retardation; V8 N3 P48-50 Jun 1970

Descriptors: exceptional child research; mentally handicapped; behavior change; custodial mentally handicapped; reinforcement; toilet training

One hundred and three profound retardates were toilet trained with limited staff in a ten-week program. Training was facilitated by a ten-hour course in practical applications of behavior modification preceding the project and increased attention by supervisors and professional staff during the project. After the program, a marked reduction of soiled linen and a significant decrease in the frequency of accidental defecations were noted. (Author)

ABSTRACT 22659

EC 02 2659 ED N.A.
Publ. Date Jan 68 7p.
Milgram, Norman A.
The Effect of Verbal Mediation in Paired-Associate Learning in Trainable Retardates.
Catholic University Of America, Washington, D. C.;
District Training Center, Laurel, Maryland, Children's Center;
Jewish Foundation For Retarded Children, Washington, D. C.
National Institute Of Mental Health (DHEW), Bethesda, Maryland
EDRS not available
American Journal Of Mental Deficiency; V72 N4 P518-24 Jan 1968

Descriptors: exceptional child research; mentally handicapped; trainable mentally handicapped; institutionalized (persons); paired associate learning; associa-

tive learning; mediation theory; learning characteristics

An experiment utilizing practice with sentence recital in paired-associate learning involved 16 trainable retardates, aged 12 to 17 years, and 16 normal children, aged 4 years. The two groups of subjects had similar mental ages. Mediation facilitation by distributed practice over 8 days was provided to individual subjects within subgroups of retarded and normal subjects. Such practice did not significantly improve the paired-associate learning of retarded subjects, but did improve the performance of the normal subjects. Retardates also differed from normals in qualitative and quantitative aspects of sentence formulation, but these differences were not significant. The study thus indicated that retardates as well as young normal children should be encouraged to repeat and verbalize formulas with comprehension and additional cues to guide problem solving behavior. (TL)

ABSTRACT 22771

EC 02 2771 ED N.A.
Publ. Date 66 60p.
Fisher, Jerome, Ed.; Harris, Robert E., Ed.
Reinforcement Theory in Psychological Treatment--A Symposium. Research Monograph Number 8.
California State Department Of Mental Hygiene, Sacramento, Bureau Of Research
EDRS not available
Bureau Of Research, California State Department Of Mental Hygiene, Sacramento, California.

Descriptors: exceptional child research; mentally handicapped; behavior change; reinforcement; emotionally disturbed; educational theories; medical treatment; operant conditioning; mental illness; behavior patterns; practical nursing; patients (persons); self help programs; autism; custodial mentally handicapped; interpersonal competence; intellectual development

Four speakers consider reinforcement theory. Nathan B. Miron discusses behavior shaping and group nursing with severely retarded patients, Thomas S. Ball describes behavior shaping of self-help skills in the severely retarded child, Halmuth H. Schaefer reports investigations on operant conditioning procedures in a mental hospital, and J. Richard Metz reviews conditioning social and intellectual skills in autistic children. In discussions, Ernest R. Hilgard assesses Skinner's theory and Nathan Adler defines the place of behavior therapies in a generic system. (LE)

ABSTRACT 22877

EC 02 2877 ED 040 529
Publ. Date Jun 69 665p.
Sammel, Melvyn I. And Others
An Exploratory Study of the Relationship Between the Training, Experience, and Selected Personality Characteristics of Teachers and the Progress of Trainable Mentally Handicapped Children. Final Report.

Wayne County Intermediate School District, Detroit, Michigan
Office Of Education (DHEW), Washington, D. C., Bureau Of Education For The Handicapped
EDRS mf, hc
OEG-5-10-022
BR-5-1051

Descriptors: exceptional child research; mentally handicapped; teacher characteristics; student development; teacher attitudes; trainable mentally handicapped; teachers; social development; individual characteristics; student teacher relationship; student evaluation

Data were obtained from surveying and testing 86 teachers and 979 trainable mentally handicapped (TMH) children. Results indicated that most teachers were married and had college degrees, but had only limited experience and no relationship outside the classroom with retarded children. Over a fourth were not certified. Most preferred to teach preschool or elementary, were disturbed by behavior problems and lack of pupil response, and viewed patience, calmness, and a sense of humor as greatest teacher assets. They emphasized the development of social skills abilities in their pupils and regarded the goals of social skills and emotional maturity as the best liked characteristics of their pupils. Most pupils in the 40 to 49 IQ range were judged capable of intelligible speech; mongoloids outnumbered brain injured children; most pupils had been in the county programs for 2 years or less. Over half the pupils had no retarded siblings; most came from blue collar families with the mother at home. Statistical analysis indicated that the vast majority of teacher variables were unrelated to pupil growth as measured by the Cain Levine Social Competency Scale. Six related studies are included. (JD)

ABSTRACT 23071

EC 02 3071 ED N.A.
Publ. Date Apr 70 3p.
Coleman, Richard
A Pilot Demonstration of the Utility of Reinforcement Techniques in Trainable Programs.
EDRS not available
Education And Training Of The Mentally Retarded; V5 N2 P68-70 Apr 1970

Descriptors: exceptional child research; mentally handicapped; teaching methods; operant conditioning; trainable mentally handicapped; positive reinforcement; academic achievement

An eight year old trainable retarded boy, who was grossly deficient in counting skills, was placed in a situation where immediate reinforcement (candy and praise) was made contingent upon correct counting. Within ten 13-minute sessions, the child more than tripled his efficiency at counting correctly. Similarly, performance on standardized tests of achievement was greatly improved. The practical implications for TMR educational programs are discussed. (Author)

ABSTRACT 23123

EC 02 3123 ED N.A.
Publ. Date 70 9p.
Brown, Lou And Others
Using Behavior Modification Principles to Teach Sight Vocabulary.
EDRS not available
Teaching Exceptional Children; V2 N3
P120-8 Spr 1970

Descriptors: exceptional child research; mentally handicapped; behavior change; sight vocabulary; trainable mentally handicapped; educational methods; group instruction; individual instruction; program evaluation; learning processes

To determine whether or not behavior modification techniques could be used to teach trainable mentally handicapped students sight words, an individual and a group study were conducted. The procedure involved the presentation of 57 words in groups of three with positive reinforcement for correctly labeled words until all groups in the series were correctly named. It was theorized that modeling and positive reinforcement would assist the learning process and that the student would be increasingly proficient at naming as the learning set was established. The assumptions were proven true; the group experiment was even more successful than the individual because of the reinforcement of the peer

group. It is felt that expectations should be increased for the mentally handicapped as studies such as this indicate that they can accomplish more than simply survival tasks. (JM)

ABSTRACT 23128

EC 02 3128 ED N.A.
Publ. Date Aug 70 9p.
Johnson, Robert E. And Others
Procedures for Evaluating Physical Functioning in Trainable Mentally Retarded Children.
EDRS not available
Training School Bulletin; V67 N2 P78-86 Aug 1970

Descriptors: exceptional child research; mentally handicapped; physical examinations; testing programs; physical health; physical fitness; trainable mentally handicapped

It is noted that professional personnel engaged in the direction of physical education and recreation programs for the trainable mentally retarded have, in many instances, given little concern for the determination of the trainable child's existing physical potential. This paper is a description of a testing program which was developed to objectively study the physical functioning of a trainable population. Its purpose was to identify the individual trainable child's physical potential in order to prescribe a

more meaningful program of physical education and therapeutic exercise to meet individual needs. (Author)

ABSTRACT 23418

EC 02 3418 ED N.A.
Publ. Date Aug 70 5p.
Treffry, Doug And Others
Operant Conditioning of Grooming Behavior of Severely Retarded Girls.
EDRS not available
Mental Retardation; V8 N4 P29-33 Aug 1970

Descriptors: exceptional child research; custodial mentally handicapped; operant conditioning; conditioned response; self care skills; educational methods; females; hygiene; behavior modification

A program was developed so that the regular nursing staff, during their normal, daily routine, could effectively teach severely mentally handicapped girls to wash and dry their hands and faces. The task was broken into twelve steps and each step was taught using positive reinforcement, fading, and time-out punishment. At the start of the program, none of the girls could perform the steps without some physical guidance. By the ninth week, seven of the eleven subjects could perform the tasks without any physical guidance. The value of publishing procedural reports is discussed. (Author)

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